

IN THE CLAIMS

1. (previously presented) A method for scanning an object to reduce image degradation, said method comprising:

scanning the object in a helical mode using a multi-slice CT imaging system having a plurality of detector arrays arranged along a z-axis direction and a radiation source having a beam focal spot;

controlling a wobble of the focal spot of the radiation source in the z-axis direction during said scanning to selectively preferentially illuminate individual said detector arrays through the scanned object for each view;

collecting data from each said detector array for each view only when the detector array from which data is being collected is selectively illuminated.

2. (previously presented) A method in accordance with Claim 1 wherein said controlling a wobble of the focal spot of the radiation source comprises moving a pre-object collimator.

3. (previously presented) A method in accordance with Claim 2 wherein the radiation source is an x-ray tube, and said controlling a wobble of the focal spot of the radiation source wobbling comprises dynamically controlling the x-ray tube focal spot.

4. (currently amended) A method in accordance with Claim 3 wherein dynamically controlling the x-ray tube focal spot comprises steering an electron beam to illuminate two ~~focal spots on a cathode~~ focal spots of a cathode of the x-ray tube.

5. (Original) A method in accordance with Claim 3 wherein dynamically controlling the x-ray tube focal spot comprises alternately strobing two cathodes in an x-ray tube to illuminate two different focal spots.

6. (previously presented) A method in accordance with Claim 1 wherein said controlling a wobble of the focal spot of the radiation source comprises dynamically controlling the radiation tube focal spot.

7. (Original) A method in accordance with Claim 1 wherein said object is a medical patient.

8. (Cancelled)

9. (previously presented) A method for scanning an object to reduce image degradation, said method comprising:

scanning the object in a helical mode using a multi-slice CT imaging system having a plurality of detector arrays arranged along a z-axis direction and a radiation source having a beam focal spot;

controlling a wobble of the focal spot of the radiation source in the z-axis direction during said scanning to selectively preferentially illuminate individual said detector arrays through the scanned object for each view;

pulsing the radiation source so that the radiation source is off when the focal spot is wobbled between positions in which individual said detector arrays are selectively preferentially illuminated; and

collecting data from each said detector array for each view only when the detector array from which data is being collected is selectively illuminated.

10. (previously presented) A method in accordance with Claim 9 wherein said controlling a wobble of the focal spot of the radiation source comprises moving a pre-object collimator.

11. (previously presented) A method in accordance with Claim 10 wherein the radiation source is an x-ray tube, and said controlling a wobble of the focal spot of the radiation source comprises dynamically controlling the x-ray tube focal spot.

12. (previously presented) A method in accordance with Claim 9 wherein said controlling a wobble of the focal spot of the radiation source comprises dynamically controlling the radiation tube focal spot.

13. (previously presented) A CT imaging apparatus comprising:

a radiation source on a rotating gantry having a beam focal spot; and
a plurality of detector arrays arranged along a z-axis and configured to detect
radiation from said radiation source passing through an object to be imaged;
said CT imaging apparatus configured to:
scan an object in a helical mode;
control a wobble of the focal spot of the radiation source in the z-axis direction
during said scanning to selectively preferentially illuminate individual said detector arrays
through the scanned object for each view; and
collect data from each said detector array for each view only when the detector
array from which data is being collected is selectively illuminated.

14. (previously presented) An apparatus in accordance with Claim 13 further
comprising a moveable pre-object collimator, and to control a wobble of the focal spot of the
radiation source, said apparatus is configured to move said pre-object collimator.

15. (previously presented) An apparatus in accordance with Claim 14 wherein
said radiation source is an x-ray tube, and to control a wobble of the focal spot of the
radiation source, said apparatus is further configured to dynamically control the x-ray tube
focal spot.

16. (currently amended) An apparatus in accordance with Claim 15 wherein
to dynamically control the x-ray tube focal spot, said apparatus is configured to steer an
electron beam of the x-ray tube to illuminate two different ~~focal spots on a single cathode~~
focal spots of a single cathode.

17. (currently amended) An apparatus in accordance with Claim 15 wherein
said x-ray tube comprises two cathodes, and to dynamically control the x-ray tube focal spot,
said apparatus is configured to alternately strobe ~~focal spots on the two different cathodes~~
focal spots of the two different cathodes.

18. (previously presented) An apparatus in accordance with Claim 13 wherein to control a wobble of the focal spot of the radiation source, said apparatus is further configured to dynamically control the radiation source focal spot.

19. (Original) An apparatus in accordance with Claim 13 further comprising a movable table configured to support a patient between said radiation source and said detector arrays.

20. (cancelled)

21. (previously presented) A CT imaging apparatus comprising:
a radiation source on a rotating gantry having a beam focal spot; and
a plurality of detector arrays arranged along a z-axis and configured to detect radiation from said radiation source passing through an object to be imaged;

said CT imaging apparatus configured to:

scan an object in a helical mode;

control a wobble of the focal spot of the radiation source in the z-axis direction during said scanning to selectively preferentially illuminate individual said detector arrays through the scanned object for each view;

pulse the radiation source so that the radiation source is off when the focal spot is wobbled between positions in which each of said detector arrays is selectively preferentially illuminated; and

collect data from each said detector array for each view only when the detector array from which data is being collected is selectively illuminated.

22. (previously presented) An apparatus in accordance with Claim 21 further comprising a moveable pre-object collimator, and to control a wobble of the focal spot of the radiation source, said apparatus is configured to move said pre-object collimator.

23. (previously presented) An apparatus in accordance with Claim 22 wherein said radiation source is an x-ray tube, and to control a wobble of the focal spot of the

radiation source, said apparatus is further configured to dynamically control the x-ray tube focal spot.

24. (previously presented) An apparatus in accordance with Claim 21 wherein to control a wobble of the focal spot of the radiation source, said apparatus is further configured to dynamically control the radiation source focal spot.